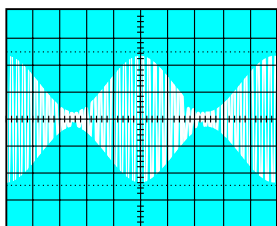
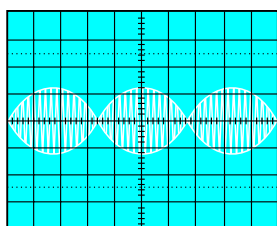


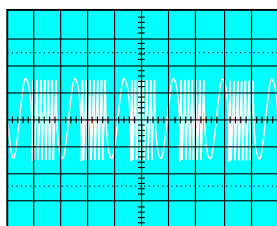
10 MHz AM FM Function Generator Counters SM5078A



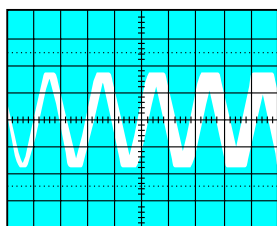
Sinewave with AM (Standard)



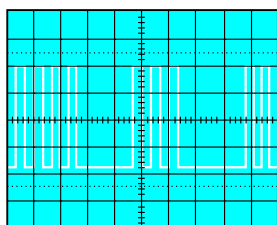
Sinewave with AM Balanced



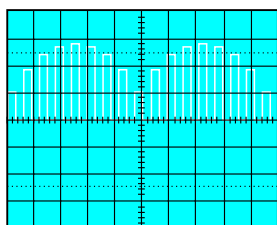
FM



Sweep Mode (FM)



FM Modulated Pulses



PAM Signal

- New versatile 10 MHz function generators with Sine, Square, Triangle, Ramp, Pulse, TTL & DC.
- Modulations of any signal by AM, FM, PWM, PAM and Internal Sweep.
- Direct display of amplitude .
- High frequency stability.
- Variable pulse duty cycle adjustment.
- Frequency unaffected when selecting waveforms.
- Precise control over settings via Encoder.
- High signal purity and constant amplitude flatness through out the entire range.
- Auto ranging 40 MHz Frequency Counter.
- 50 mVrms sensitivity for stable display of external signal frequency.
- Back lit LCD for display of functions, frequency , amplitude and other parameters.
- Internal AM Signal generator 20 Hz-20 kHz
- Square wave rise time better then 70 ns.

10 MHz AM FM Function Generator Counter SM5078A

Technical Specifications

Operating Modes : Function Generator, Frequency Counter , Sweep Generator , Amplitude display, AM Generator

Modulation: AM standard & Balanced, FM int (sweep) & Ext., PWM, PAM

Function Generator

Sine, Square, Triangle, Ramp, Pulse , Invert Ramp, Invert Pulse, TTL, DC Free running, with or without DC offset

Frequency Range : 0.3 Hz to 10 MHz

Frequency Stability : < 0.1% / hr or 0.2% / 24 hr at constant ambient temperature

Waveform Characteristics :

Sinewave

Frequency Range : 0.3 Hz - 10 MHz

Distortion : 0.3 Hz - 100 kHz : max. 0.5 %
0.1 MHz - 0.5 MHz : max. 1.5%
0.5 MHz - 3 MHz : max. 3%
3 MHz - 10 MHz : max. 5%

Square Wave

Frequency Range : 0.3 Hz - 10 MHz

Risetime : typ. \leq 70 ns

Overshoot : \leq 5%

Triangular Wave

Frequency Range : 0.3 Hz - 10 MHz

Non-linearity : < 1% (up to 100 kHz)

Ramp & Pulse wave

Polarity : +ve or -ve selectable

Frequency Range : 0.3 Hz to 3 MHz

Duty Cycle : Adjustable 10% to 90% up to 300 kHz and 20% to 80% 300 kHz to 3 MHz

TTL / Trigger Output

Square Wave synchronous to signal output, TTL > 4 Vpp

Frequency Accuracy : (4 digits)

Up to 3 Hz : \pm (1% + 3 D) ; 3 Hz -10 MHz : \pm (0.1% + 1 D)

Output : (short-circuit-proof)

Output Voltage : 10 Vpp into 50 Ω , max. 20 Vpp open circuit

Pulse Output : 10 Vp open circuit

Attenuation : Automatically selected with adjustment of output level (max. 60 dB , 2 steps : 20 dB \pm 0.2 dB each Variable : 0 to 20 dB)

Amplitude Flatness : (sine/triangle terminated with 50 Ω)

0.3 Hz - 0.3 MHz : max. \pm 0.2 dB ; 0.3 MHz - 3 MHz : max. \pm 0.5 dB ;
3 MHz - 10 MHz : max. \pm 3 dB

Output Impedance : 50 Ω (front panel), 600 Ω (on rear panel)

DC Offset : Variable offset range : max. \pm 2.5 V into 50 Ω , max. \pm 5 V open circuit

Amplitude Modulation

Modulation Depth : 0 to 100% (approx.)

Bandwidth : DC to 20 kHz

Carrier Frequency : up to 10 MHz

Max. Input : AM standard & AM Balanced : \pm 30 V max

Frequency Modulation (FM Ext.)

Input : (Mod connector on rear panel)

Frequency Change : 1 : 100 approx.

Input Impedance : 50 k Ω || 25 pF

FM Internal (Sweep) :

Sweep Speed (Time) : 20 ms to 4s

Sweep Range : 1 : 100 approx.

Input Voltage : \pm 30 V max.

Pulse Width Modulation

Input : \pm 30 V max (Mod connector on rear panel)

Modulation Index : 20 to 80 % or better

Pulse Amplitude Modulation

Input : \pm 30 V max (Mod connector on rear panel)

Depth of Modulation : 80 % or better

Internal Modulation Generator :

Waveforms : sine, square , triangle

Frequency : 20 Hz to 20 kHz

Amplitude : adjustable 2 to 10 Vpp approx.

Frequency Counter :

Frequency Counter : 5 digits , Auto ranging

Frequency Range : 10 Hz to 40 MHz

Accuracy : \pm (0.1% + 1D)

Input Sensitivity : 50 mV_{rms} to 500 mV_{rms}

Input Voltage : 150 V_{rms} max.

Input Impedance : 1 M Ω || 50 pF

Amplitude Display

Display range : 20 mVpp - 20 Vpp

Accuracy : \pm 2% \pm 1D

General Information :

Display : Backlit LCD readout for displaying functions, frequency, modulation modes, Sweep start-stop-time, % pulse duty cycle, DC offset, External frequency in counter mode

Supply : 230 V \pm 10%, 50 Hz

(100/120/220/240 V available on request)

Power Consumption : 30 VA approx.

Operating Conditions : 0 to 50°C, RH 95%

Dimensions : W:205, H:95, D:292 (mm)

Weight : 2.4 kg (approx.)

Accessories :

Manual : 1 no. , BNC- BNC Cable - 1 no. , Line Cord : 1 no.

Optional Accessories :

50 Ω Termination SA51 , BNC - Banana Cable

(Subject to Change)

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